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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,110	01/14/2000	Faisal Haq	M-7998-US	7946
33031	7590	08/23/2005	EXAMINER	
CAMPBELL STEPHENSON ASCOLESE, LLP 4807 SPICEWOOD SPRINGS RD. BLDG. 4, SUITE 201 AUSTIN, TX 78759			DUONG, FRANK	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/483,110

**Applicant(s)**

HAQ ET AL.

**Examiner**

Frank Duong

**Art Unit**

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 16-21, 31-43 and 52-57 is/are rejected.
- 7) ☒ Claim(s) 7-15, 22-30, 44-51 and 58-64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. This Office Action is a response to communications dated 06/10/05. Claims 1-64 are pending in the application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,16-21,31-43 and 52-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobbins et al (USP 5,509,123) (hereinafter "Dobbins").

Regarding **claim 1**, in accordance with Dobbins reference entirety, Dobbins discloses a method (*Fig. 4 and col. 7, line 55 and thereafter*) comprising: receiving at least one packet (*col. 7, lines 55-56 and thereafter*); and disposing of the received at least one packet in response to a walk of a Hash Table (*cache or AVL tree*) (*col. 7, line 63 and thereafter; col. 9, lines 32-33 and thereafter and col. 11, lines 10-14*), wherein the Hash Table is balanced, the Hash Table is configured to store Binary Comparison Trees, and the Hash Table is configured to encode an Access Control List (*access list entries are kept in AVL tree discussed at col. 11, lines 10-14. AVL tree does not have a predetermined size and may grow freely. Thus, the AVL tree is inherently balanced*).

Regarding **claim 2**, in addition to features recited in base claim 2 (see rationales discussed above), Dobbins further discloses wherein said disposing of the received at least one packet in response to a walk of the Hash Table further includes: constructing a hash table index value from one or more bit positions, within the received at least one packet, pointed at by one or more pointers of a Hash-Table-Balancing Bit Selection Vector; and walking a binary comparison tree associated with the constructed hash table index value (*col. 11, lines 19-20 and thereafter*).

Regarding **claim 3**, in addition to features recited in base claim 2 (see rationales discussed above), Dobbins further discloses converting (keeping) the Access Control List (access list) to the Hash Table (AVL tree) (*col. 11, lines 12-13*).

Regarding **claim 4**, in addition to features recited in base claim 3 (see rationales discussed above), Dobbins further discloses wherein said converting the Access Control List to the Hash Table further includes: creating a binary comparison tree for at list one access control list rule in the Access Control List (*col. 11, lines 12-13 and thereafter*).

Regarding **claim 5**, in addition to features recited in base claim 4 (see rationales discussed above), Dobbins further discloses wherein said creating a binary comparison tree for at least one Access Control List rule further includes: creating at least one node, having at least one miss branch and at least one match branch, for at least one packet header field utilized by the at least one Access Control List Rule in the Access Control list (*col. 11, lines 12-53*).

Regarding **claim 6**, in addition to features recited in base claim 3 (see rationales discussed above), Dobbins further discloses wherein said converting the Access Control List to the Hash Table further includes: inserting at least a part of a binary comparison tree constructed for at least one Access Control List rule into a hash table entry pointed at by a hash table index (*col. 11, lines 18-19 and thereafter*).

Regarding **claims 16-21**, the claims call for a system having elements that mirror the method steps of method claims 1-6. Thus, they are rejected by the same rationales discussed above.

Regarding **claims 31-33**, the claims call for a system having elements that mirror the method steps of method claims 1-6 as specified in base claim 16 as embodied in signal bearing media. Thus, they are rejected by the same rationales discussed above.

Regarding **claims 35-43**, the claims call for a computer program having codes that mirror the method steps of method claims 1-6. Thus, they are rejected by the same rationales discussed above.

Regarding **claims 52-57**, the claims call for a network engine having elements that mirror the method steps of method claims 1-6. Thus, they are rejected by the same rationales discussed above.

### ***Allowable Subject Matter***

3. Claims 7-15, 22-30, 44-51 and 58-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed invention in a manner as set forth in the dependent claims 7-15, 22-30, 44-51 and 58-64, that deems to respectively further define the base claims 1, 16, 35 and 52.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-64 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schmuck et al (USP 5,893,086).

O'Connell (USP 6,922,410).

Jennings et al (USP 6,580,712).

Odom et al (USP 6,516,320).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**FRANK DUONG**  
**PRIMARY EXAMINER**

August 19, 2005